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TECHNICAL NOTE

U.S. DEPARTMENT OF THE INTERIOR - BUREAU OF LAND MANAGEMENT

ENGINE PROBLEM MAY MEAN PCV TROUBLE

There's a valve found on all new car engines which, if not serviced properly, could cost your fleet an engine.

The positive crankcase ventilation (PCV) valve is the key to the PCV system which fights air pollution by routing unburned crankcase gases through the carburetor to the combustion chamber where they are burned.

If PCV trouble goes untreated, it could result in high cost engine damage. It makes sense, therefore, to insure that shop mechanics know how to spot the problem and correct it.

Common driver complaints which signal PCV problems are stalling, rough idling and overheating. Burned valves and plugs, oil-soaked distributor points, oil oozing out of rocker covers and other gaskets, bearing failure and scuffed pistons are further indications of problems which could be caused by PCV trouble.

Once these symptoms are recognized, dig for the causes: Clogged or wrong capacity PCV valves, worn piston rings or pistons, scored cylinder walls, the wrong grade of crankcase oil, overdue oil changes and short runs in which the engine does not reach normal operating temperature.

One of the most common causes is a fully or partially clogged PCV valve. Champion Spark Plug Company's Automotive Technical Services has developed a quick test for detecting clogged PCV valves.

While the engine is idling, Champion engineers say, disconnect the hose from the rocker cover. There should be suction and a loss of engine rpm when the thumb is placed over the end. If there is no suction, replace the hose and hold a parts tag or other card over the oil filter pipe. The tag should be drawn against the pipe, and if it is, it's probable that the flame arrester is clogged. If not, check for a clogged PCV valve.

TECHNICAL NOTE

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Since the carburetor is calibrated to meter the proper fuel mixture with the PCV system operating properly, it's important that when replacing components, the same types are used. No attempt should be made to build up the system from miscellaneous parts.

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Since the procedure is outlined in detail in the previous report, it is not necessary to repeat it here. The only point to be noted is that the system should be kept as simple as possible.

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Date: ...
This report contains...